

Climate action heroes!

It's your world!

KS3 Teacher Guide

**TOMORROW
PROJECTS**



South Tyneside Council

**DOGGER BANK
WIND FARM**



Will your imagination change the world?

Take part in the Climate Action Heroes invention challenge!

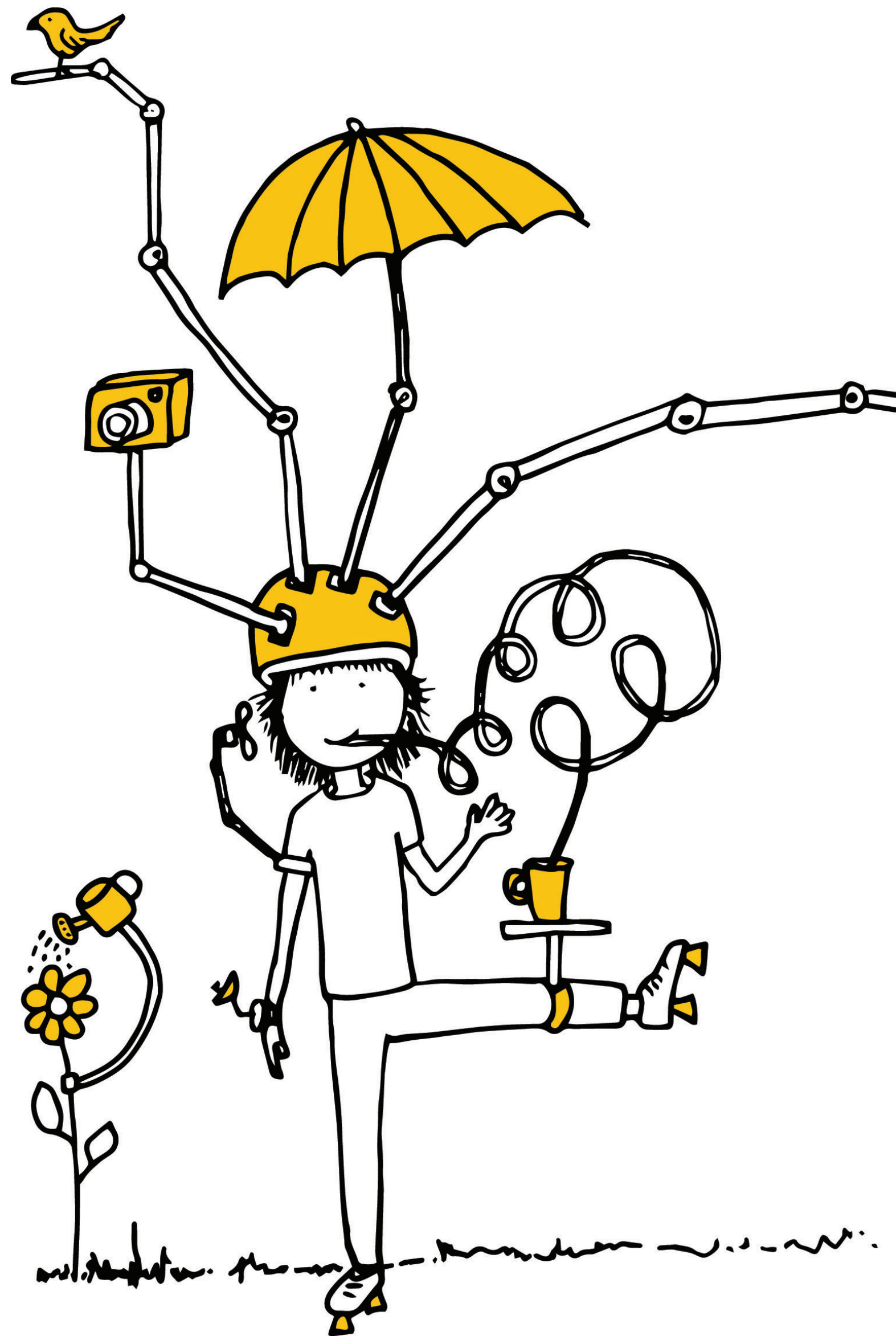
Did you know the Earth is the only planet in the whole universe with life on it (that we know of!)?

Our planet is covered in the most amazing wildlife from the teeny tiniest bug to the biggest mightiest whale. We have luscious rainforests and bustling coral reefs, mysterious jungles and vast man-made cities. But climate change means that life on Earth is changing and becoming more difficult for people and wildlife all over the world.

We all need to do our bit to make sure that everyone on the planet can live happy and healthy lives long into the future! That's where we need your invention solutions. We need to build a better future with science, invention, and innovation at the heart of it all. The more we understand about the life on our planet, the better we can learn to look after it.

That's why we've partnered with Dogger Bank Wind Farm and South Tyneside Council to bring you an invention challenge - Climate Action Heroes: It's your world!



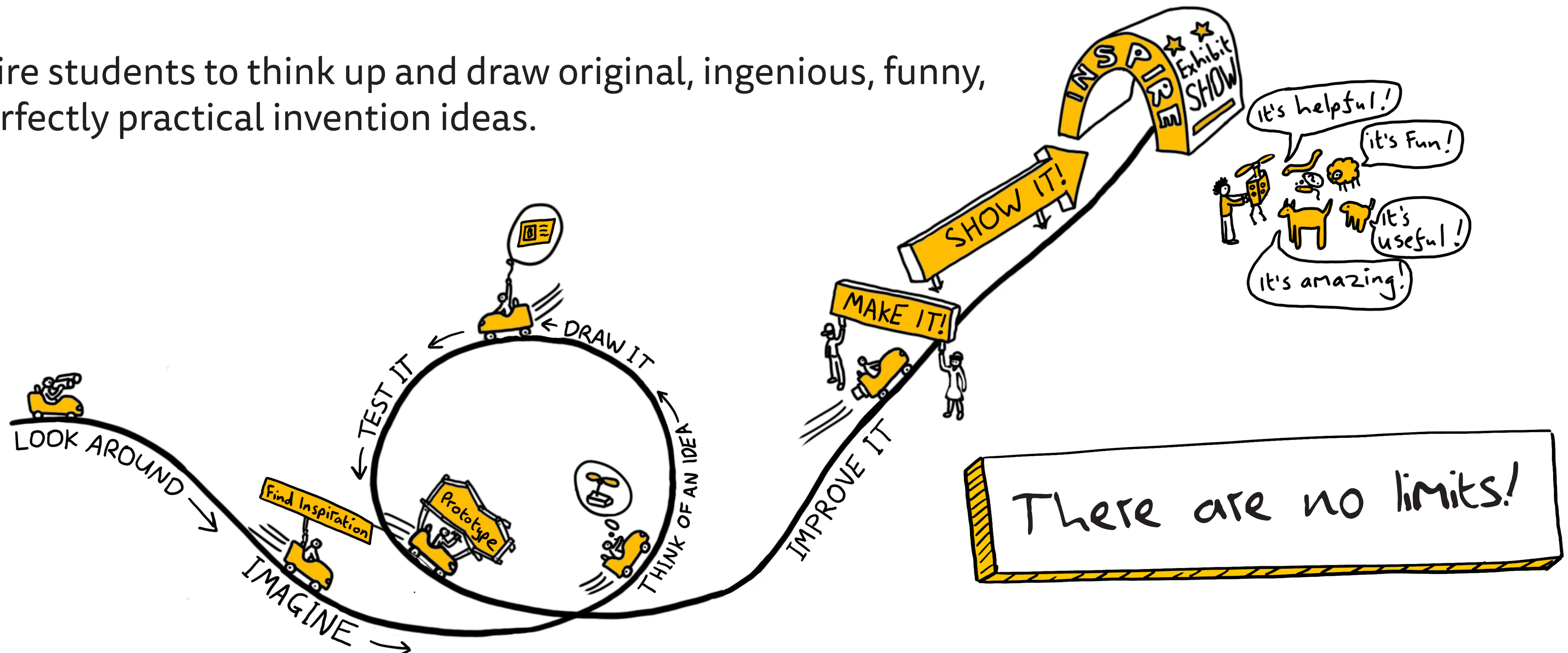


Play the challenge launch video!

What's the aim of the project?

The aim of Tomorrow Projects is to allow students to express the far reaches of their imagination. Tomorrow Projects is a branch of Little Inventors aimed at older students.

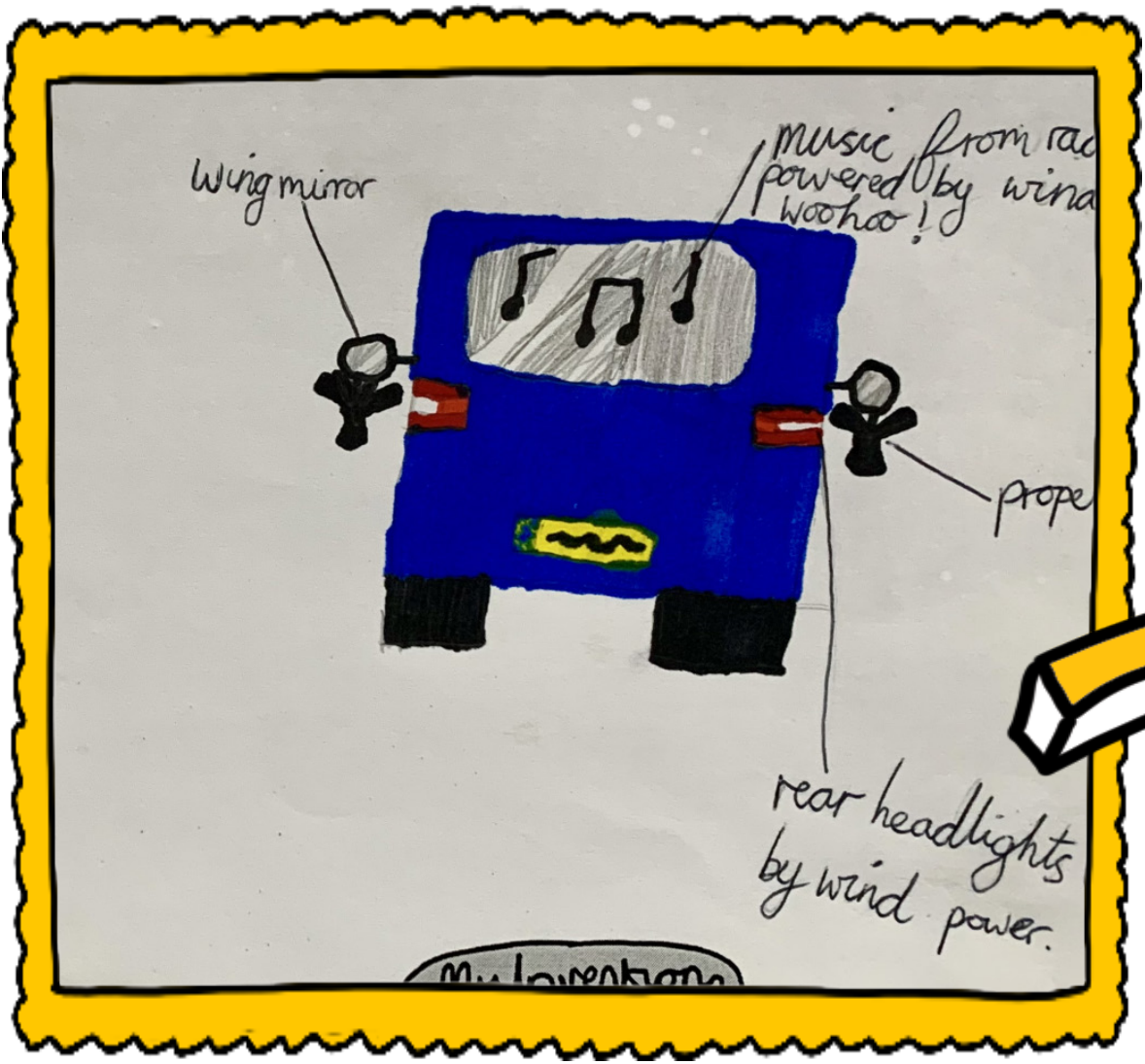
We want to inspire students to think up and draw original, ingenious, funny, fantastical or perfectly practical invention ideas.



What's in it for my students?

Students will be invited to draw and submit their own inventions to appear on the online invention gallery, where they will be reviewed by the Tomorrow Projects team and Dogger Bank Wind Farm.

Their idea might be chosen as a Tomorrow Projects Team Favourite, turned into an animation, or brought to life by one of our Magnificent Makers!



Wind Mirrors by Isaac, age 9



Brought to life by Ford Aerospace

In 2024 Isaac's was shortlisted for Young Innovator award at The Engineer's Collaborate to Innovate Awards!

Key Project Dates

**TOMORROW
PROJECTS**

Challenge
launch

**5th November
2025**

Challenge
close

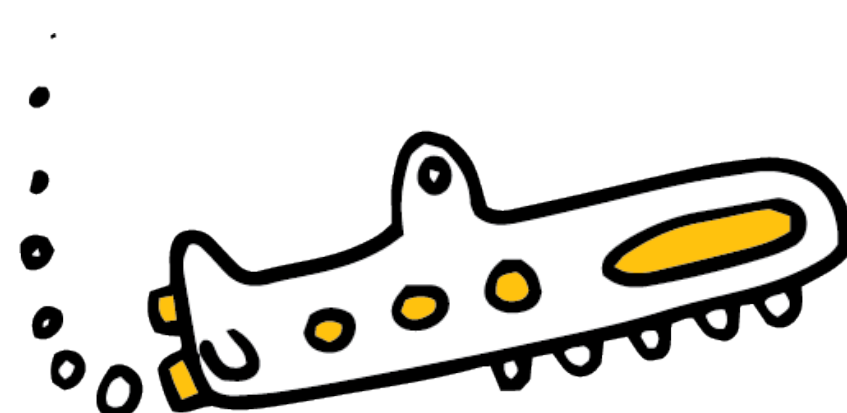
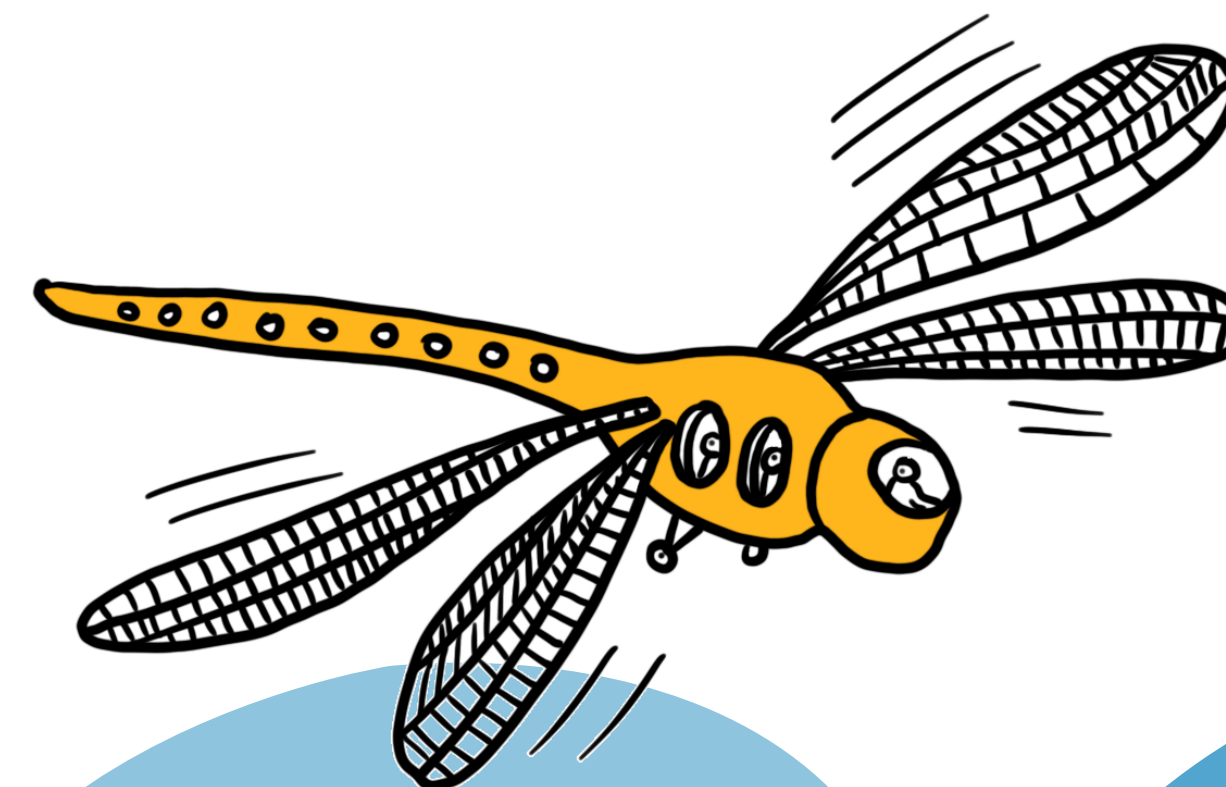
**2nd April
2026**

Winner
selection

**15th April
2026**

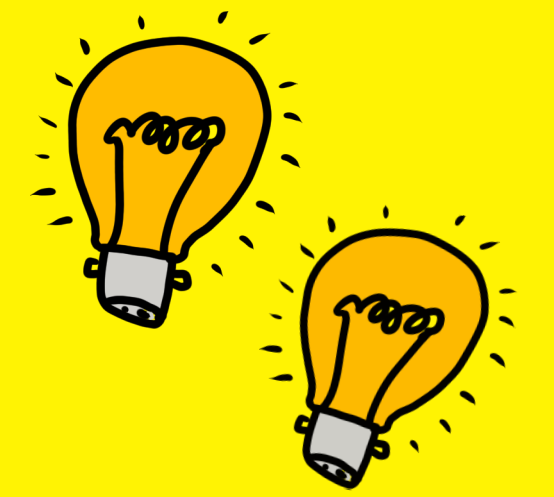
Bringing to life
process

**May - July
2026**





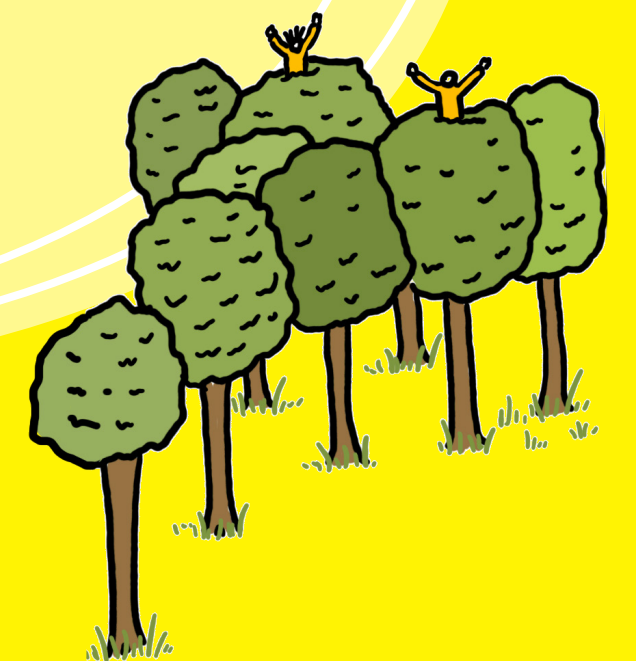
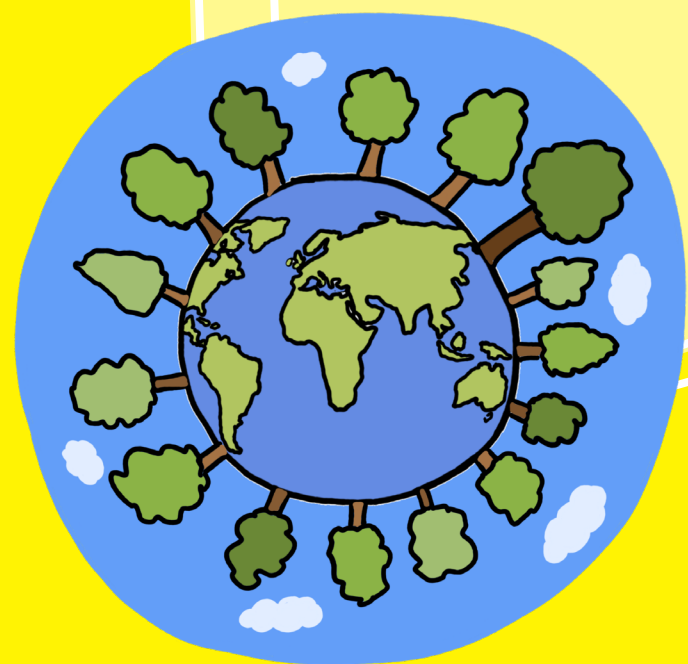
Invention challenge




What can you invent to help protect our planet?

Think of an idea to protect animals or nature, a new way to create energy, to travel or reduce waste.

How about something to stop wildfires spreading? Or a way to stop poachers killing animals illegally? What about some kind of edible packaging or even compostable clothes?*




Learning content



Students will explore climate themed topics through a **creative lens**, with the main focus being on **protecting our planet**. Using the presentations in the resource pack you will introduce them to creative thinking techniques and teach them the content they need to know to come up with their own **brilliant inventions**.

Students will get creative about how they can **invent something to protect biodiversity** or **live more sustainably**.

The activities will allow students to **gather information** and creative ideas to develop some unique and exciting sparks of inspiration that will guide them on to designing their final invention!



The presentations are also available as **narrated videos** which can be played directly to your students to speed things up or used for yourself to revise the content.



Resource pack checklist

Use this Resource pack checklist to make sure you have all of the core materials to hand to deliver the challenge!

All resources are available at tomorrowprojects.littleinventors.org

Your lessons and activities can be adapted to suit your specific learning environment and students' needs



Introduction presentation [Powerpoint](#) ☐

Challenge Launch Video ☐

Challenge Presentation [Powerpoint](#) ☐

Activated Challenge Presentation ☐

Activity Sheet: Your day in plastic [PDF](#) ☐

Activity Sheet: Travelling without a trace [PDF](#) ☐

Activity Sheet: Fantasy food chain [PDF](#) ☐

Activity Sheet: What's the story? [PDF](#) ☐

Challenge Cards [PDF](#) ☐


Invention Drawing Sheet [PDF](#) ☐

Digital teaching resources

Who are Little Inventors?

We are a team that believes **young people** like you **have the best ideas**, and that **they can change the world!**





This is Dominic our Chief Inventor!

Over 15,000 young people have already sent us their **invention drawings**, and over 250 of them have been chosen to be **brought to life** by experts for exhibitions!

Introduction Presentation

25 - 30 mins

What a wonderful world!



Challenge Presentation

40 - 60 mins

KEY STAGE 3

Climate action heroes!

It's your world!



TOMORROW PROJECTS

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Activated Challenge Presentation

26 mins

Printed resources

60 - 120 mins

**TOMORROW
PROJECTS**

Fantasy food chain

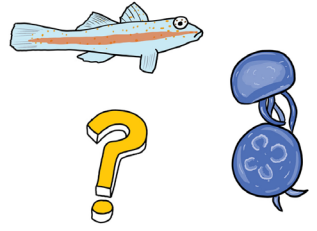
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Invent your own fantasy ecosystem!

Invent:
One producer
Two herbivores
Two carnivores
One decomposer

Draw them, give them names and connect them with arrows to make a new food web.

Be creative!
How about glowing plants, space rabbits or fire-breathing predators!
Anything goes, so long as the food web makes sense.



Large empty box for drawing the food web.

Fantasy food chain


What's the story?

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Write a story about an invention that helps take care of our planet. Who needs help, what's the problem, how did the invention help?

Think about the characters in your story, who are they and why might they need your invention?

Beginning: How does it start? Where is it set? Middle: What is the problem that needs solving? End: How could your invention help? What happens next?



tomorrowprojects.littleinventors.org

What's the story?

Your day in plastic

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Think of a typical day when you or someone around you uses plastic things. Write down what the plastic thing is, then think of what could be used instead.

In the morning Think about what you use in the bedroom. Kitchen on the way to school.

During the day Think about school, lunch, playing, what you wear.

During the evening Think about dinner, technology, rest, sleep.

When travelling Think of how to go places, what you need.

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Your day in plastic

Challenge cards

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Cut up the cards and pick one to get started.

What does this make you think about? What problem do you need to solve? What invention can you come up with?

You can also make up your own or adapt one of these!

Invent a children's playground that generates green energy.	Invent a new way to package food and drinks that doesn't use plastic.
Design a house made from things you can find on the beach.	Invent a method of transport using butterflies.
Invent an item of clothing that will attract bees and butterflies.	Invent a device that protects trees from illegal logging.

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Challenge cards

Travelling without a trace

TOMORROW PROJECTS

The way we travel and transport goods creates a lot of pollution. Can you think of other ways could we travel that creates less or no pollution?

Top tip! Think of ways to move that don't need fuel or electricity.

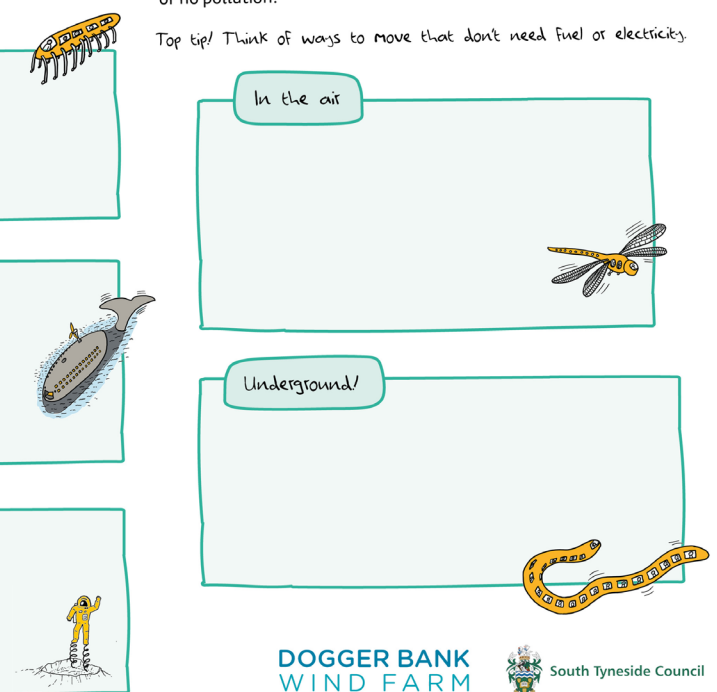
On land

At sea

In space

In the air

Underground



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Travelling without a trace

Think of an idea to help protect animals or nature. A new way to create energy, to travel or reduce waste. No problem is too big or too small to invent for!

My planet protecting invention

First name _____
Age _____
School _____
Town/city _____

Tell us more!
(who your invention is for, what it does, how it works!)

Draw your invention here! Use a black pen, add colours and labels.

Upload your idea at tomorrowprojects.littleinventors.org to get feedback. And who knows, it could be chosen to be made real!

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Invention drawing sheet

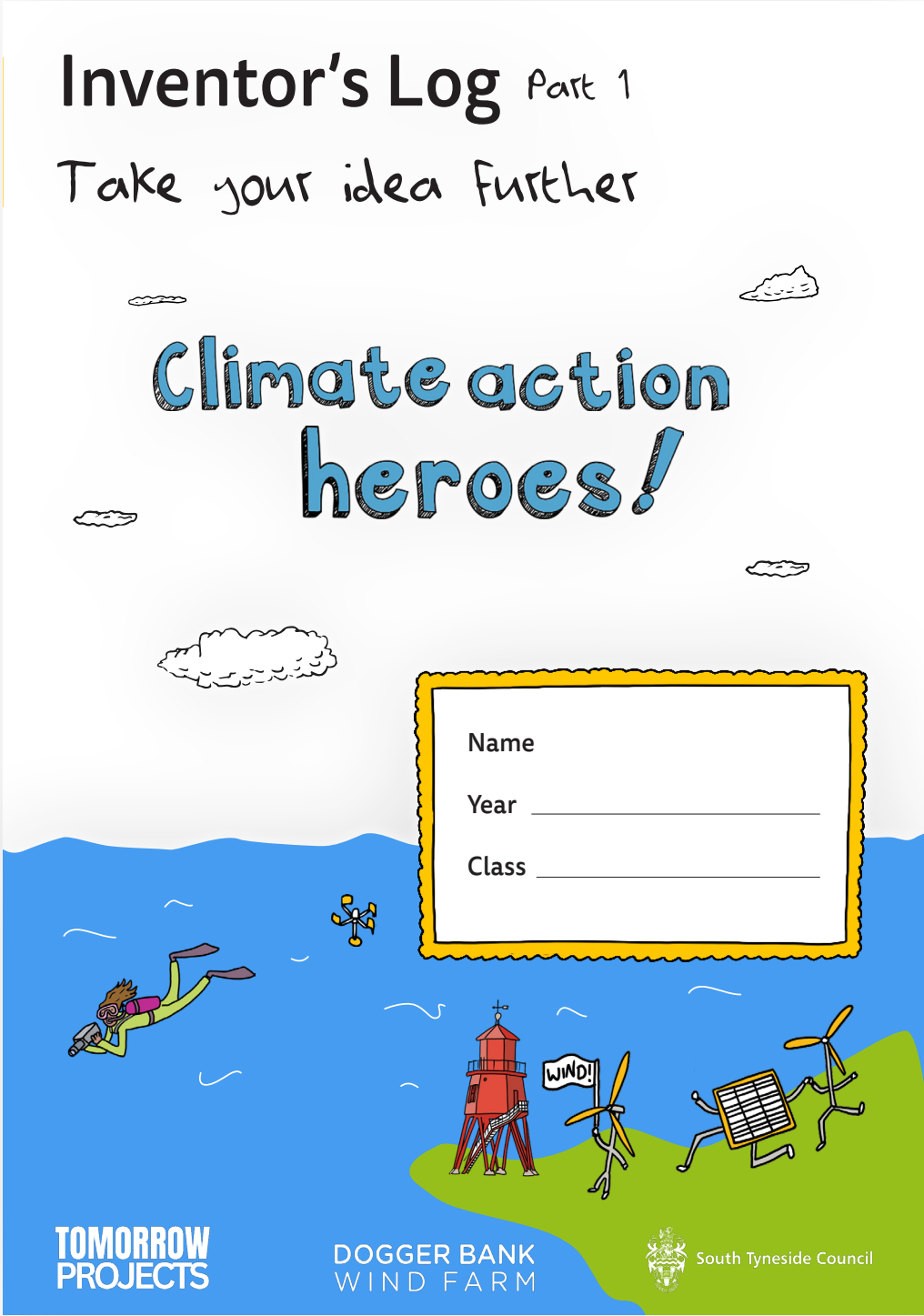
The Challenge cards
can be shared between
multiple students

Go further!

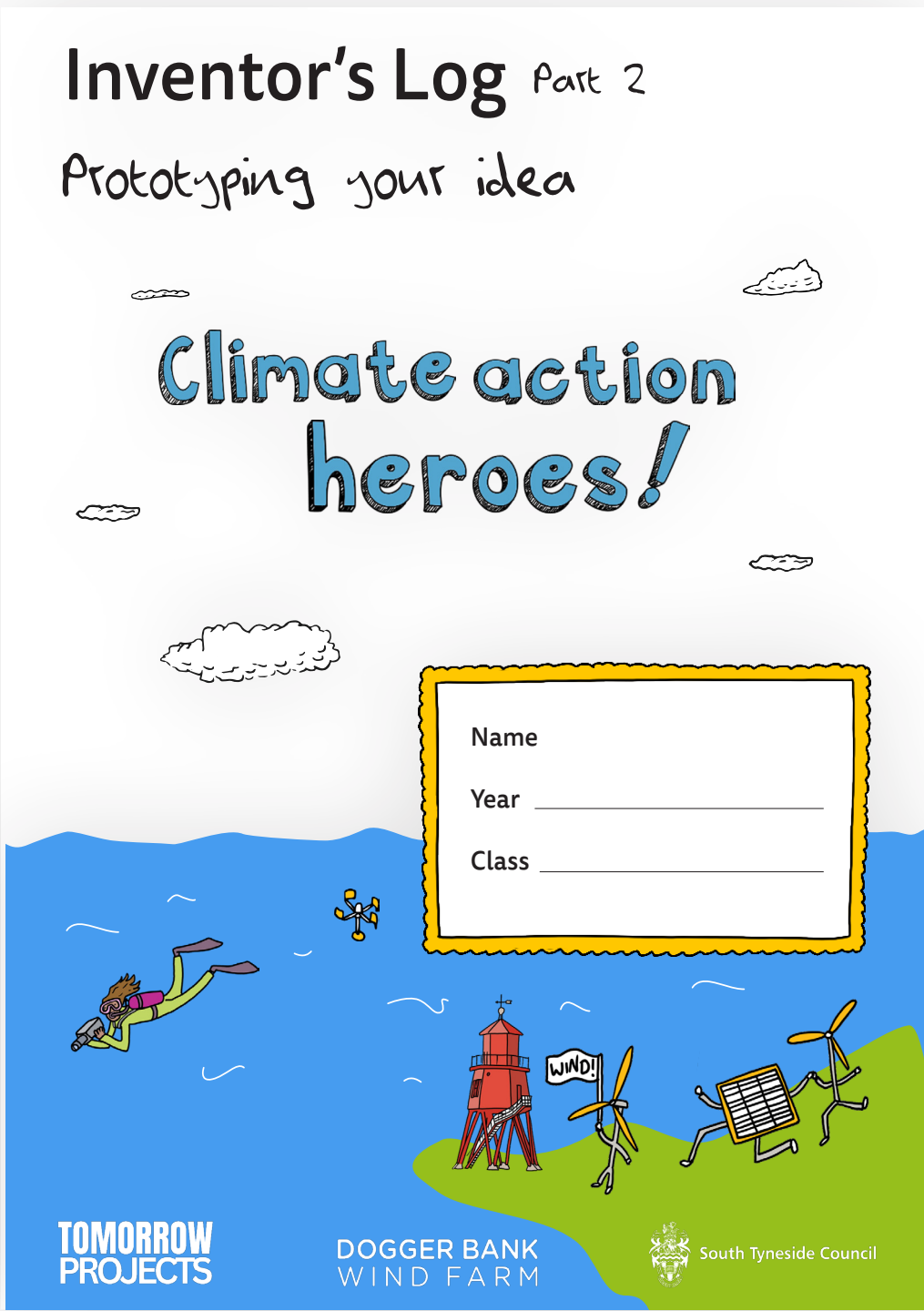
30 - 180 mins

**TOMORROW
PROJECTS**

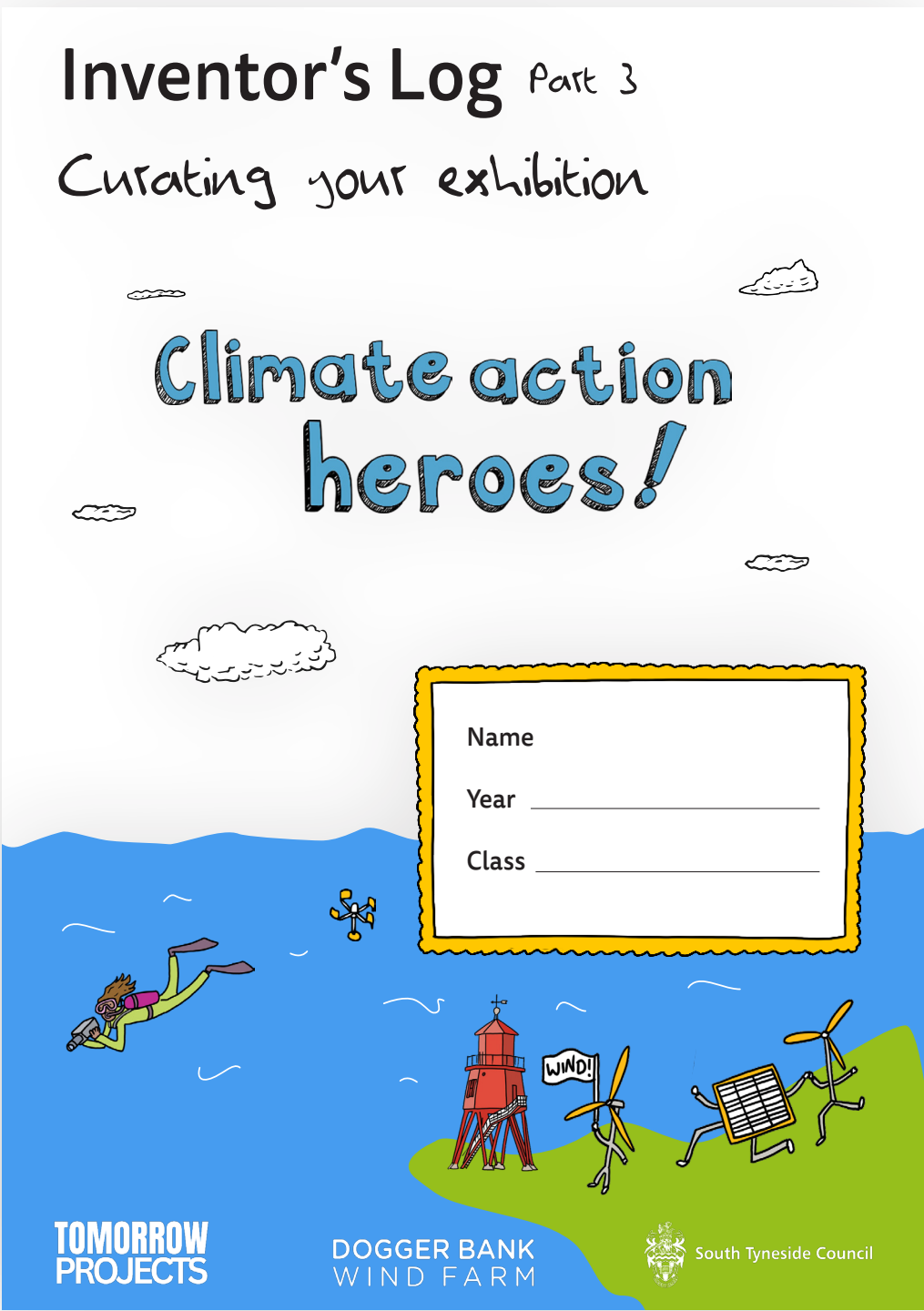
Extension activities for students who want to continue their great work. These activities can form many hours of additional learning and can be dipped into during classtime or at home.



Take your ideas further



Prototyping your idea

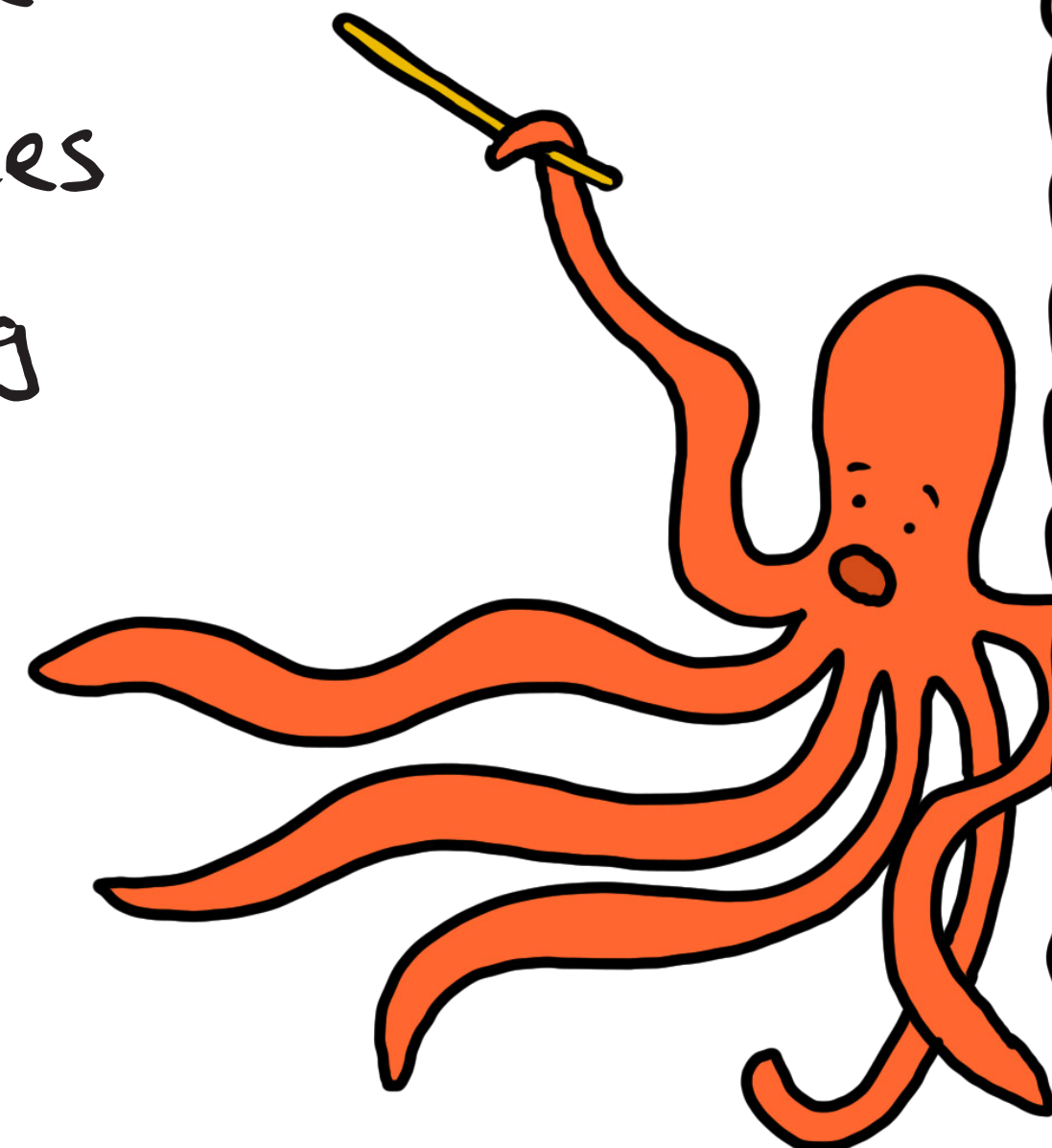


Curating your exhibition

Tips on using the resources

The resources are designed to be worked through from top to bottom intersected with hands-on activities along the way to keep the students engaged and developing their creativity and inventing skills.

It's important to familiarise yourself with the resources before delivering anything to your class.



In addition to the printed materials your class will need:

- Pens and coloured pencils
- Scissors
- Junk materials for students that prefer to think with their hands rather than sketching (e.g. cardboard boxes, plastic bottles, pipe cleaners...anything destined for trash that can be re-used to make a model)
- Additional materials for prototyping if students want to explore the extension activities

Submitting your students ideas

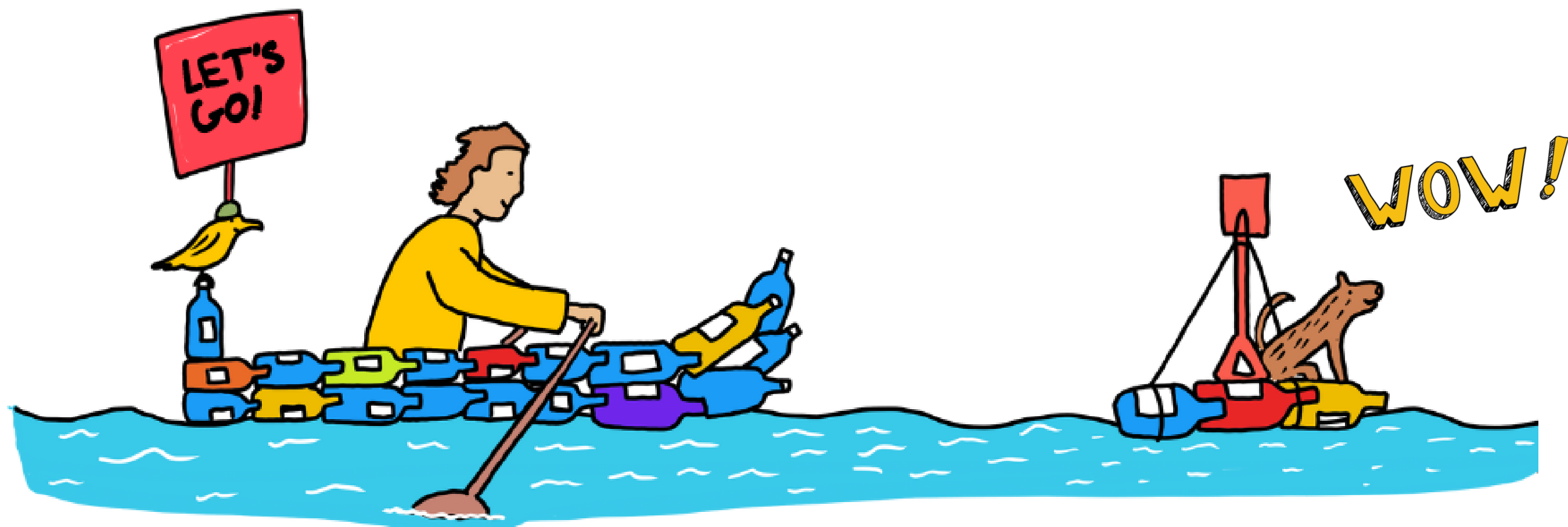
TOMORROW PROJECTS

Scan all invention drawing sheets and follow the upload instructions on our [upload page](#) to submit your ideas.

For this challenge we have made this process much faster than in previous years so we hope you can submit as many invention ideas as possible.

Visit the upload page here:

<https://tomorrowprojects.littleinventors.org/challenges/climate-action-heroes-ks3/upload>



Think of an idea to help protect animals or nature. No problem is too big or too small to invent for!

Draw your invention here! Use a black pen, add colours and labels

My wildlife protecting invention

Name it/

First name _____

Age _____

School _____

Town/city _____

Tell us more!
(who your invention is for and how it works!)

Deadline
2nd April 2026

MY INVENTION

Upload your idea at southtyneside.littleinventors.org to get feedback. And who knows, it could be chosen to be made real!

South Tyneside Council

DOGGER BANK
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The best ideas submitted will be published on the website with feedback from our experts! And a winning idea will be brought to life by a professional maker!

What next?

Celebrate all of the hard work completed by the whole class. You may want to explore ideas of how you can showcase all of the inventions at your school.

How about an invention exhibition?
You could invite the school community to come and explore all of the fantastic ideas!



Download the Classroom Exhibition Materials at tomorrowprojects.littleinventors.org

We're here to help

**TOMORROW
PROJECTS**

If you have any questions or need any help
please get in touch with Ellie or Craig at

hello@littleinventors.org

We wish you and your
students the best of luck
with the challenge and
can't wait to see the
inventions!

